Fatigue and the Aviator

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Fatigue is one of the greatest threats to aircrew in peacetime

- From 1975 - 1995 there were 96 Class A mishaps related to fatigue
- Fatigue is like having 2 - 3 stiff drinks

Circadian Rhythm and Jet Lag

- Circadian rhythm is essentially your daily bodily activities (sleeping, waking, physical activity, etc.)
- Jet Lag occurs when traveling too rapidly to permit immediate adjustment to a new environment

Jet Lag is worsened by

- Age > 40 years old
- Traveling west to east
- Excessive alcohol
- Hypoxia

Jet Lag: Symptoms

- Fatigue
- Decreased physical activity level
- Decreased efficiency
- Impaired judgment
- Generalized discomfort

Jet Lag: Treatment/Prevention

- Medications have been used (i.e. RAF in the Faulklin Islands War)
- Pre-adaptation: arrive 2 - 3 days prior to the mission or match sleep/wake cycles like the deployment site prior to leaving

Sustained Operations

- Awake for 20 hours, sleep 3 - 4 hours, repeat
- You can get by like this for a few days, however performance declines

Sustained Operations/Fatigue: Cost to the Aviator

- Irritability
- Inattention
- Loss of Situational Awareness
- Decreased resistance to infections

Sustained Operations/Fatigue: Prevention

- 2 - 3 days prior to mission get plenty of sleep
- Eat and exercise well
- Avoid excessive alcohol
- Plan mission sleep schedule
- Identify mission segments when fatigue symptoms will be worse
- “Power Nap” if possible

Power Nap

- Short: 10 - 30 minutes of sleep restores alertness for 3 - 4 hours
- Long: 3 - 4 hours of sleep restores alertness for 12 - 15 hours

Helpful Hints for Successful Sleep

- Daily exercise
- Avoid sleep aids
- Eat a light snack at bedtime
- Avoid excessive liquid consumption prior to lying down
- Avoid caffeine 3 - 4 hours prior to bedtime
- Avoid excessive alcohol
- Don’t look at your clock to calculate amount of sleeptime remaining
- Use your bed for sleep and sex only!

Summary

- Fatigue is like drinking 2 - 3 stiff drinks prior to boarding your aircraft
- Training your body prior to deployment can help decrease jet lag
- For Sustained Operations, “Power Nap” if time allows
- Maintain good sleep habits even when not deployed!